

gatatcgttacgcttcatgtgccgctcaatacggatacgcactatattat
cagccacgaacaaatacagagaatgaaggcaaggcatttttatcaata
ctgggcgcggcttccacttgttagataacctatgagttggtaaagcattagaa
aacgggaaactgggcgtgccgcattggatgtattgaaggagaggaaga
gtttttctactctgattgcacccaaaaaccataatcaattttac
ttaaaacttcaaagaatgcctaacgtgataatcacaccgcatacggctat
tataccgagcaagcgtgcgtgataccgtgaaaaaaaaaccattaaaaactg
tttggattttgaaaggagacaggagcatgaatagaataaaagtgcata
ctgtttgggggttgctcagaggagcatgacgtatcgtaaaatctgcaat
agagatagccgctaacattaataaagaaaaatacgagccgttatacattg
gaattacgaaatctgggtatggaaaatgtgcgaaaaacccctgcgcggaa
tggaaaaacgacaattgtcttgcgtactctgcggataaaaaaat
gcacggattacttgttaaaaagaaccatgaatatacgatccatgttgc
atgttagcatttcagcttgcgtgcagtcaggtaagatggatccata
caaggctctgtttgaattgtccggatccctttgtaggctgcgatattca
aagctcagcaattgtatggacaatcggtgacatacatcggtgcgaaaa
atgctggatagactccgcctttgggttattaataaagatgatagg
cgggtggcagctacgttacctatccgtttgttaagccggcgcgttc
aggctcatccctreggtgtaaaaaagtcaatagcgcggacgaattggact
acgcaattgaatcggcaagacaatatgacagacaaaaatctaattgagcag
gctgttccggctgtgaggtcggttgcgttgcgttgcgttgcgttgc
gttagttgtggcgaggtggaccaatcaggctgcgttgcgttgcgttgc
gtattcatcaggaagtcgagccggaaaaaggctctgaaaacgcgttata
accgttcccgcagaccccccactcagcagaggagcggacggatacaggaaac
gcaaaaaaaaataataaagcgctcggtgttagaggcttagccgtgtgg
atatgttttacaagataacggccgcattgtactgaacgaagtcaataact
ctgcccgggttacgtcatacagtcgttgcgttgcgttgcgttgc
aggtattgcacttcccgaactgattgaccgcttgcgttgcgttgcgttgc
aggggtgataagcatgaaataggattacttttttagatgaaatagtagac
acgggtttcggtggacgcctaaatatgccacttggataatttcacccga
aaaccgggttgcgggttatgaagtaatcgcattgttagggacatacggat
ggctgaatcgtttgtggacggcaaaagaactggtgttgcgttgcgttgc
gattgtttctatggacgggttaccgtcctaagcgtgcgttgcgttgc
atgcaatgggctgcacagccggaaaataacctgacaaaggaaagttatta
tcccaatattgaccgaactgagatgattcaaaaggatacgtggcttcaa
aatcaagccatagcccg

Fig 1

Fig 2 (Sheet 1 of 10)

	A C A C G G G C A A G C C C T C T G C A T C C A A G C A C C C G A T A T A C T T Majority			
	170	180	190	200
35	A C A C G G G C A A G C C C T C T G C A T C C A A G C A C C C G A T A T A C T T U94526.seq			
35	A C A C G [] G C A A G C C C T C T G C A T C C A A G C A C C C G A T A T A C T T U94527.seq			
35	A C A C G G G C A A G C C C T C T G C A T C C A A G C A C C C G A T A T A C T T U94528.seq			
35	A C A C G G G C A A G C C C T C T G C A T C C A A G C A C C C G A T A T A C T T U94529.seq			
35	A C A C G G G C A A G C C C T C T G C A T C C A A G C A C C C G A T A T A C T T U94530.seq			
563	A C A C G G G C A A G C C C T C T G C A T C C A A G C A C C C G A T A T A C T T L15304.seq			
770	A C A C G G G C A A G C C C T C T G C A T C C A A G C [] C C C G A T A T A C T T U72704.seq			
930	A C A C G [] G C A A G C C C T C T G C A T C C A A G C A C C C G A T A T A C T T U00456.seq			
	T C T T T G C C G T T T C C T G C A C C C G A T T T C G T T C C T C G A C C G G Majority			
	210	220	230	240
75	T C T T T G C C G T T T C C T G C A C C C G A T T T C G T T C C T C G A C C G G U94526.seq			
75	T C T T T G C C G T T T C [] T G C A C C C G A T T T C G T T C C T C G A C C G G U94527.seq			
75	T C T T T G C C G T T T C C T G C A C C C G A T T T C G T T C C T C G A C C G G U94528.seq			
75	T C T T T G C C G T T T C C T G C A C C C G A T T T C G T T C C T C G A C C G G U94529.seq			
75	T C T T T G C C G T T T C C T G C A C C C G A T T T C G T T C C T C G A C C G G U94530.seq			
523	T C T T T G C C G T T T C C T G C A C C C G A T T T C G T T C C T C G A C C G G L15304.seq			
730	T C T T T G C C G T T T C C T G C A C C C G A T T T C G T T C C [] C G A C [] G G U72704.seq			
890	T C T T T G C C G T T T C [] T G C A C C C G A T T T C G T T C C T C G A C C G G U00456.seq			
	A A T G T C T G C G G G A A C T G T A A T C A T C G C A T T T T C T G A G C C T Majority			
	250	260	270	280
115	A A T G T C T G C G G G A A C T G T A A T C A T C G C A T T T T C T G A G C C T U94526.seq			
115	A A T G T C T G C [] G G G A A C [] T A A T C A T C G C A T T [] T C T G A G C C T U94527.seq			
115	A A T G T C T G C G G G A A C T G T A A T C A T C G C A T T T T C T G A G C C T U94528.seq			
115	A A T G T C T G C G G G A A C T G T A A T C A T C G C A T T T T C T G A G C C T U94529.seq			
115	A A T G T C T G C G G G A A C T G T A A T C A T C G C A T T T T C T G A G C C T U94530.seq			
483	A A T G T C T G C G G G A A C T G T A A T C A T C G C A T T T T C T G A G C C T L15304.seq			
690	[] A T G T C T G C [] G G G A A C [] T A A T C A T C G C A T T [] T C T G A [] C C T U72704.seq			
850	A A T G T C T G C [] G G G A A C [] T A A T C A T C G C A T T [] T C T G [] A G C C T U00456.seq			
	T T T T C C G G C T C G T T T C C T G A T G G A T G C G G A A G A T A C C C G T Majority			
	290	300	310	320
155	T T T T C C G G C T C G T T T C C T G A T G G A T G C G G A A G A T A C C C G T U94526.seq			
155	T T T T C C G G C T C G T T T C C T G A T G G A T G C G G A A G A T A C C C G T U94527.seq			
155	T T T T C C G G C T C G T T T C C T G A T G G A T G C G G A A G A T A C C C G T U94528.seq			
155	T T T T C C G G C T C G T T T C C T G A T G G A T G C G G A A G A T A C C C G T U94529.seq			
155	T T T T C C G G C T C G T T T C C T G A T G G A T G C G G A A G A T A C C C G T U94530.seq			
443	T T T T C C G G C T C G T T T C C T G A T G G A T G C G G A A G A T A C C C G T L15304.seq			
650	T T T T C C G G C T C G T T T C C T G A T G G A T G C G G A A G A T A C C C G T U72704.seq			
810	T T T T C C G G C T C G T T T C C T G A T G G A T G C G G A A G A T A C C C G T U00456.seq			

FIG. 2 (sheet 2 of 10)
Cont'd

.GGCTCAGCCGGATTGATCCACTTGCCCGACAAATCAAATC Majority

330

340

350

360

195 GGCTCAGCCGGATTGATCCACTTGCCCGACAAATCAAATC U94526.seq
195 GGCTCA[REDACTED]CCGGATTGATCCACTTGCCCGACAAATCAAATC U94527.seq
195 GGCTCAGCCGGATTGATCCACTTGCCCGACAAATCAAATC U94528.seq
195 GGCTCAGCCGGATTGATCCACTTGCCCGACAAATCAAATC U94529.seq
195 GGCTCAGCCGGATTGATCCACTTGCCCGACAAATCAAATC U94530.seq
403 GGCTCAGCCGGATTGATCCACTTGCCCGACAAATCAAATC L15304.seq
610 GGCTCAGCCGGATTGATCCACTTGCCCGACAAATCAAATC U72704.seq
770 GGCTCA[REDACTED]CCGGATTGATCCACTTGCCCGACAAATCAAATC U00456.seq

ATCCTCGTTCCCCATGACCGCACACCCGACCTCACAGCCC Majority

370

380

390

400

235 ATCCTCGTTCCCCATGACCGCACACCCGACCTCACAGCCC U94526.seq
235 ATCCTCGTT[REDACTED]CCCATGACCGCAC[REDACTED]CCGACCTCACAGCCC U94527.seq
235 ATCCTCGTTCCCCATGACCGCACACCCGACCTCACAGCCC U94528.seq
235 ATCCTCGTTCCCCATGACCGCACACCCGACCTCACAGCCC U94529.seq
235 ATCCTCGTTCCCCATGACCGCACACCCGACCTCACAGCCC U94530.seq
363 ATCCTCGTTCCCCATGACCGCACACCCGACCTCACAGCCC L15304.seq
570 ATCCTCGTTCCCCAT[REDACTED]ACCGCAC[REDACTED]CCGACCTCACAGCCC U72704.seq
730 ATCCTCGTT[REDACTED]CCCATGACCGCAC[REDACTED]CCGACCTCACAGCCC U00456.seq

GAAATCGCTTGCTCAATTAAAGATTTCATCATATTGTC Majority

410

420

430

440

275 GAAATCGCTTGCTCAATTAAAGATTTCATCATATTGTC U94526.seq
275 GAAATCGCTTGCTCAATTAAAGATTTCATCATATTGTC U94527.seq
275 GAAATCGCTTGCTCAATTAAAGATTTCATCATATTGTC U94528.seq
275 GAAATCGCTTGCTCAATTAAAGATTTCATCATATTGTC U94529.seq
275 GAAATCGCTTGCTCAATTAAAGATTTCATCATATTGTC U94530.seq
323 GAAATCGCTTGCTCAATTAAAGATTTCATCATATTGTC L15304.seq
530 GAAATCGCTTGCTCAATTAAAGATTTCATCATATTGTC U72704.seq
690 GAAATCGCTTGCTCAATTAAAGATTTCATCATATTGTC U00456.seq

CTGCCGGCTTCTATCGCAGCGTTAAGTTCTTCCGTACCGTT Majority

450

460

470

480

315 CTGCCGGCTTCTATCGCAGCGTTAAGTTCTTCCGTACCGTT U94526.seq
315 CTGC[REDACTED]GCTTCTATCGCAGCGTT[REDACTED]AGTTCTTCCGTACCGTT U94527.seq
315 CTGCCGGCTTCTATCGCAGCGTTAAGTTCTTCCGTACCGTT U94528.seq
315 CTGCCGGCTTCTATCGCAGCGTTAAGTTCTTCCGTACCGTT U94529.seq
315 CTGCCGGCTTCTATCGCAGCGTTAAGTTCTTCCGTACCGTT U94530.seq
283 CTGCCGGCTTCTATCGCAGCGTTAAGTTCTTCCGTACCGTT L15304.seq
490 CTGCCGGCTTCTATCGCAGCGTTAAGTTCTTCCGTACCGTT U72704.seq
650 CTGC[REDACTED]GCTTCTATCGCAGCGTT[REDACTED]AGTTCTTCCGTACCGTT U00456.seq

FIG. 2 (continued)
Sheet 3 of 10

T A C T T T G G T T A C G C C A A A G G A C G A A C C T G A C C G T G C C G G C Majority

490

500

510

520

355 T A C T T T G G T T A C G C C A A A G G A C G A A C C T G A C C G T G C C G G C U94526.seq
355 T A C T T T G G T T A C G C C A A A G G A C G A A C C T G A C C G T G C C G G C U94527.seq
355 T A C T T T G G T T A C G C C A A A G G A C G A A C C T G A C C G T G C C G G C U94528.seq
355 T A C T T T G G T T A C G C C A A A G G A C G A A C C T G A C C G T G C C G G C U94529.seq
355 T A C T T T G G T T A C G C C A A A G G A C G A A C C T G A C C G T G C C G G C U94530.seq
243 T A C T T T G G T T A C G C C A A A G G A C G A A C C T G A C C G T G C C G G C L15304.seq
450 T A C T T T G G T T A A G C C A A A G G A C G A A C C T G A C C G T G C C G G C U72704.seq
610 T A C T T T G G T T A C G C C A A A G G A C G A A C C T G A C C G T G C C G G C U00456.seq

T T C A C A A A G A C A G G G T A G G T A A G C G C A C C C G C C T C C G G C T Majority

530

540

550

560

395 T T C A C A A A G A C A G G G T A G G T A A G C G C A C C C G C C T C C G G C T U94526.seq
395 T T C A C A A A G A C A G G G T A G G T A A G C G C A C C C G C C T C C G G C T U94527.seq
395 T T C A C A A A G A C A G G G T A G G T A A G C G C A C C C G C C T C C G G C T U94528.seq
395 T T C A C A A A G A C A G G G T A G G T A A G C G C A C C C G C C T C C G G C T U94529.seq
395 T T C A C A A A G A C A G G G T A G G T A A G C G C A C C C G C C T C C G G C T U94530.seq
203 T T C A C A A A G A C A G G G T A G G T A A G C G C A C C C G C C T C C G G C T L15304.seq
410 T T C A C A A A G A C A G G G T A G G T A A G C G C A C C C G C T C C G G C T U72704.seq
570 T T C A C A A A G A C A G G G T A G G T A A G C G C A C C C G C T C C G G C T U00456.seq

T G T C A C C T T T A T C A A T C A T T G A A A T T C G G G A A C G G G C G A T Majority

570

580

590

600

435 T G T C A C C T T T A T C A A T C A T T G A A A T T C G G G A A C G G G C G A T U94526.seq
435 T G T C A C C T T T A T C A A T C A T T G A A A T T C G G G G A C G G G C G A T U94527.seq
435 T G T C A C C T T T A T C A A T C A T T G A A A T T C G G G A A C G G G C G A T U94528.seq
435 T G T C A C C T T T A T C A A T C A T T G A A A T T C G G G A A C G G G C G A T U94529.seq
435 T G T C A C C T T T A T C A A T C A T T G A A A T T C G G G A A C G G G C G A T U94530.seq
163 T G T C A C C T T T A T C A A T C A T T G A A A T T C G G G A A C G G G C G A T L15304.seq
370 T G T C A C C T T T A T C A A T C A T T G A A A T T C G G G A A C G G G C G A T U72704.seq
530 T G T C A C C T T T A T C A A T C A T T G A A A T T C G G G G A C G G G C G A T U00456.seq

G C C C G C A T T T T T G T A A G A A T G T A G G C C A G T G A T T T G T C C Majority

610

620

630

640

475 G C C C G C A T T T T T G T A A G A A T G T A G G C C A G T G A T T T G T C C U94526.seq
475 G C C C G C A T T T T T G T A A G A A T G T A G G C C A G T G A T T T G T C C U94527.seq
475 G C C C G C A T T T T T G T A A G A A T G T A G G C C A G T G A T T T G T C C U94528.seq
475 G C C C G C A T T T T T G T A A G A A T G T A G G C C A G T G A T T T G T C C U94529.seq
475 G C C C G C A T T T T T G T A A G A A T G T A G G C C A G T G A T T T G T C C U94530.seq
123 G C C C G C A T T T T T G T A A G A A T G T A G G C C A G T G A T T T G T C C L15304.seq
330 G C C C G C A T T T T T G T A A G A A T G T A G G C C A G T G A T T T G T C C U72704.seq
490 G C C C G C A T T T T T G T A A G A A T G T A G G C C A G T G A T T T G T C C U00456.seq

FIG. 2 (cont'd)

Sheet 4 of 10

ATGCAAGCTGC GGAGCTTGAATATCACAGCCCACATAAGG Majority

650

660

670

680

515 ATGCAAGCTGC GGAGCTTGAATATCACAGCCCACATAAGG U94526.seq
515 ATGCAAGCTGC GGAGCTTGAATATCACAGCCCACATAAGG U94527.seq
515 ATGCAAGCTGC GGAGCTTGAATATCACAGCCCACATAAGG U94528.seq
515 ATGCAAGCTGC GGAGCTTGAATATCACAGCCCACATAAGG U94529.seq
515 ATGCAAGCTGC GGAGCTTGAATATCACAGCCCACATAAGG U94530.seq
83 ATGCAAGCTGC GGAGCTTGAATATCACAGCCCACATAAGG L15304.seq
290 ATGCAAGCTGC GGAGCTTGAATATCACAGCCCACATAAGG U72704.seq
450 ATGCAAGCTGC GGAGCTTGAATATCACAGCCCACATAAGG U00456.seq

GGATACCAGACAATTCAAACAGCCCCCTGTATCGCACCATC Majority

690

700

710

720

555 GGATACCAGACAATTCAAACAGCCCCCTGTATCGCACCATC U94526.seq
555 GGATACCAGACAATTCAAACAGCCCCCTGTATCGCACCATC U94527.seq
555 GGATACCAGACAATTCAAACAGCCCCCTGTATCGCACCATC U94528.seq
555 GGATACCAGACAATTCAAACAGCCCCCTGTATCGCACCATC U94529.seq
555 GGATACCAGACAATTCAAACAGCCCCCTGTATCGCACCATC U94530.seq
43 GGATACCAGACAATTCAAACAGCCCCCTGTATCGCACCATC L15304.seq
250 GGATACCAGACAATTCAAACAGCCCCCTGTATCGCACCATC U72704.seq
410 GGATACCAGACAATTCAAACAGCCCCCTGTATCGCACCATC U00456.seq

CTCCCCGGCATTTGCCATGCAAAACCGGGAAAGCCACATCA Majority

730

740

750

760

595 CTCCCCGGCATTTGCCATGCAAAACCGGGAAAGCCACATCA U94526.seq
595 CTCCCCGGCATTTGCCATGCAAAACCGGGAAAGCCACATCA U94527.seq
595 CTCCCCGGCATTTGCCATGCAAAACCGGGAAAGCCACATCA U94528.seq
595 CTCCCCGGCATTTGCCATGCAAAACCGGGAAAGCCACATCA U94529.seq
595 CTCCCCGGCATTTGCCATGCAAAACCGGGAAAGCCACATCA U94530.seq
7 [REDACTED] CAT [REDACTED] L15304.seq
210 CTCCCCGGCATTTGCCATGCAAAACCGGGAAAGCCACATCA U72704.seq
370 CTCCCCGGCATTTGCCATGCAAAACCGGGAAAGCCACATCA U00456.seq

ATACGCCGTGTTTCGTATTCGCTTTCTTCAATGACAAGCA Majority

770

780

790

800

635 ATACGCCGTGTTTCGTATTCGCTTTCTTCAATGACAAGCA U94526.seq
635 ATACGCCGTGTTTCGTATTCGCTTTCTTCAATGACAAGCA U94527.seq
635 ATACGCCGTGTTTCGTATTCGCTTTCTTCAATGACAAGCA U94528.seq
635 ATACGCCGTGTTTCGTATTCGCTTTCTTCAATGACAAGCA U94529.seq
635 ATACGCCGTGTTTCGTATTCGCTTTCTTCAATGACAAGCA U94530.seq
4 [REDACTED] L15304.seq
170 ATACGCCGTGTTTCGTATTCGCTTTCTTCAATGACAAGCA U72704.seq
330 ATACGCCGTGTTTCGTATTCGCTTTCTTCAATGACAAGCA U00456.seq

FIG. 2. (cont'd)

Sheet 5 of 10

FIG. 2 (cont'd)
Sheet 6 of 10

Decoration 'Decoration #1': Shade (with black at 40% fill) residues that differ from the Consensus.

FIG. 2 (cont'd)
Sheet 7 of 10

1 aacgatgccg ccataccttgc gaaaaaaaaag atcaacacgg gcaagccctc tgcataccaag
61 caccggatata actttcttg ccgtttctg caccggattt cgtaatcatcg ccggaaatgtc
121 tgccggaaact gtaatcatcg cattttctga gccttttcc ggctcggttt cctgatggat
181 gccggaaatata ccgtggctca gcccggattt atccacttcg ccgacaatca aatcatcctc
241 gttccccatg accgcacacc cggatccaca gcccggaaatc gtttgcctaa ttaagatttt
301 tccatcatat tgtcctgtcg cttctatcgc agcgtaatgt tttccgtac cgtaatcc
361 ggttacgcca aaggacgaac ctgaccgtgc cggatccaca aagacagggt aggttaagcgc
421 acccgccctcc ggcttgcac ctttatcaat catttgaat tccggaaacgg cgatgcccgc
481 atttttgtta agaatgttagg ccagtgttgc gtttgcctaa gtcggggaccc tttgaatata
541 acagccca taggggatac cagacaatata aaacagcccc tttatcgac catcctcccc
601 gcatttgcca tgcaaaaaccg gggaaagccac atcaatacgc cgtgtttcgat attcgcttc
661 ttcatgaca agcagccat gcttttccat atccggggag aatatggcgg ggagactgtc
721 ggcttccat tccgtacatg gcttcttgca tagttccat acaccgtttt ttgttaattcc
781 gatgttagtgc ggatcgaaatt t

SEQ ID NO: 10

1 aacgatgccg ccataccttgc gaaaaaaaaag atcaacacgg gcaagccctc tgcataccaag
61 caccggatata actttcttg ccgtttctg caccggattt cgtaatcatcg ccggaaatgtc
121 tgccggaaact gtaatcatcg cattttctga gccttttcc ggctcggttt cctgatggat
181 gccggaaatata ccgtggctca accggattt atccacttcg ccgacaatca aatcatcctc
241 gttccccatg accgcgcaccc cggatccaca gcccggaaatc gtttgcctaa ttaagatttt
301 tccatcatat tgtcctgtcg cttctatcgc agcgtaatgt tttccgtac ttttacttt
361 ggttacgcca aaggacgaac ctgaccgtgc cggatccaca aagacagggt aggttaagcgt
421 cctcgccctcc ggtttgcac cttttcaat catttgaat tccggggacgg cgatgcccgc
481 atttttgtta agaatgttagg ccagtgttgc gtttgcctaa gtcggggaccc tttgaatata
541 acagccca taggggatac cagacaatata aaacagcccc tttatcgac catcctcccc
601 gcatttgcca tgcaaaaaccg gggaaagccac atcaatacgc cgtgtttcgat attcgcttc
661 ttcatgaca agcagccat gcttttccat atccggggag aatatggcgg ggagactata
721 ggcttccat tccgtacatg gcttcttgca tagttccat acaccgtttt ttgttaattcc
781 gatgttagtgc ggatcgaaatt t

SEQ ID NO: 11

1 aacgatgccg ccataccttgc gaaaaaaaaag atcaacacgg gcaagccctc tgcataccaag
61 caccggatata actttcttg ccgtttctg caccggattt cgtaatcatcg ccggaaatgtc
121 tgccggaaact gtaatcatcg cattttctga gccttttcc ggctcggttt cctgatggat
181 gccggaaatata ccgtggctca gcccggattt atccacttcg ccgacaatca aatcatcctc
241 gttccccatg accgcacacc cggatccaca gcccggaaatc gtttgcctaa ttaagatttt
301 tccatcatat tgtcctgtcg cttctatcgc agcgtaatgt tttccgtac cgtaatcc
361 ggttacgcca aaggacgaac ctgaccgtgc cggatccaca aagacagggt aggttaagcgc
421 acccgccctcc ggcttgcac ctttatcaat aatttgaat tccggaaacgg cgatgcccgc
481 atttttgtta agaatgttagg ccagtgttgc gtttgcctaa gtcggggaccc tttgaatata
541 acagccca taggggatac cagacaatata aaacagcccc tttatcgac catcctcccc
601 gcatttgcca tgcaaaaaccg gggaaagccac atcaatacgc cgtgtttcgat attcgcttc
661 ttcatgaca agcagccat gcttttccat atccggggag aatatggcgg ggagactgtc
721 ggcttccat tccgtacatg gcttcttgca tagttccat acaccgtttt ttgttaattcc
781 gatgttagtgc ggatcgaaatt t

SEQ ID NO: 12

FIG. 2 (cont'd)
Sheet 8 of 10

1 aacgatgccg ccattcctcct gaaaaaaaaag atcaacacgg gcaagccctc tgcattccaag
61 cacccgatat actttcttg cggttcctg caccggattt cgttcctcga ccggaatgtc
121 tgcgggaaact gtaatcatcg cattttctga gccttttcc ggctcggtt cctgatggat
181 gcggaaagata ccgtggctca gccggattt atccacttcg ccgacaatca aatcatcctc
241 gttccccatg accgcacacc cgacctcaca gcccggaaatc gcttgctcaa ttaagatTTT
301 tccatcatat tgtcctgccc cttctatcgc agcgttaagt tcttccgtac cgtttacttt
361 ggttacgcca aaggacgaac ctgaccgtgc cggcttcaca aagacagggt aggttaagcgc
421 accccgcctcc ggcttgcac ctttatcaat aatttggaaat tcgggaaacgg cgatgcccgc
481 atttttgtt agaatgttagg ccagtgtt gttccatgcaa gctgcggagc tttgaatatac
541 acagccccaca tagggatac cagacaatac aaacagcccc tgtatcgac catcctcccc
601 gcatttgcca tgcaaaaaccg ggaaagccac atcaatacgc cgtgtttcgat attcgcttcc
661 tttcatgaca agcagccccat gcgtttccat atccggggag agtatggcgg ggagactgtc
721 ggcttccat tccgtacatg gcttcttgca tagctccat acaccgtttt ttgttaattcc
781 gatgttagtgc ggatcgaatt t

SEQ ID NO:13

1 aacgatgccg ccattcctcct gaaaaaaaaag atcaacacgg gcaagccctc tgcattccaag
61 cacccgatat actttcttg cggttcctg caccggattt cgttcctcga ccggaatgtc
121 tgcgggaaact gtaatcatcg cattttctga gccttttcc ggctcggtt cctgatggat
181 gcggaaagata ccgtggctca gccggattt atccacttcg ccgacaatca aatcatcctc
241 gttccccatg accgcacacc cgacctcaca gcccggaaatc gcttgctcaa ttaagatTTT
301 tccatcatat tgtcctgccc cttctatcgc agcgttaagt tcttccgtac cgtttacttt
361 ggttacgcca aaggacgaac ctgaccgtgc cggcttcaca aagacagggt aggttaagcgc
421 accccgcctcc ggcttgcac ctttatcaat aatttggaaat tcgggaaacgg cgatgcccgc
481 atttttgtt agaatgttagg ccagtgtt gttccatgcaa gctgcggagc tttgaatatac
541 acagccccaca tagggatac cagacaatac aaacagcccc tgtatcgac catcctcccc
601 gcatttgcca tgcaaaaaccg ggaaagccac atcaatacgc cgtgtttcgat attcgcttcc
661 tttcatgaca agcagccccat gcgtttccat atccggggag agtatggcgg ggagactgtc
721 ggcttccat tccgtacatg gcttcttgca tagctccat acaccgtttt ttgttaattcc
781 gatgttagtgc ggatcgaatt t

SEQ ID NO:14

1 gaggatgggt gcatccaggg actgtttgaa ttgtctggta tcccctatgt gggctgtgat
61 attcaaagct ccgcagcttgc catggacaaa tcactggct acatttcttac aaaaaatgcg
121 ggcatcgccg ttcccgaaatt tcaaattgtt gataaagggt acaagccgg ggcgggtgcg
181 cttacctacc ctgtctttgtt gaagccggca cggtcaggtt cgtcctttgg cgtaaccaaa
241 gtaaaacggta cggaagaact taacgctgcg atagaagcgg caggacaata tgatggaaaa
301 atcttaatttgc agcaagcgat ttccggctgtt gaggtcgggt gtgcggcat ggggaacgg
361 gatgatttgc ttgtcggcga agtggatcaa atccgctga gcccacggat cttccgcattc
421 catcaggaaa acgagccgg aaaaaggctca gaaaatgcga tgattacagt tcccgcagac
481 attccggcgtcg aggaacgaaa tcgggtgcag gaaacggcaa agaaagtata tcgggtgctt
541 ggatgcagag ggcttgcggc tggtatctt ttttgcagg aggtatggcgg catcgatctca
601 aatgaggatca acaccctgccc cggcttcac

SEQ ID NO:15

FIG. 2 (cont'd)

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1 gaaaaattcg atccgcacta catcggatt aaaaaagggtgttatggaa gctatgcaag
61 aagccatgta cggaatggga agccgacagt ctccccgcca tactctcccc ggataggaaa
121 acgcatggtc tgcttgtcat gaaagaaaagc gaatacgaaa cacggcgtat tgatgtggct
181 ttcccagttt tgcattggcaa atgcggggag gacgggtcgat tacagggttt atttgaatttg
241 tctggcatcc cctatgtggg ctgcgatatt caaagctccg cagcttgcatttgcacaaaatca
301 ctggcctaca ttcttacaaa aaatgcgggc atcggcgttc cggatattca aatgattgtat
361 aaaggtgaca agccggagac ggggtcgctt acctaccctg tctttgtgaa gccggcacgg
421 tcaggttcgt ccttggctt aaccaaaagta aacggatcgg aagaacttaa cgctgcgata
481 gaagcggcag gacaatatga tggaaaaatc ttaatttgagc aacgcatttc gggctgtgag
541 gtcggctgtg cggttatggg gaacgaggat gatttgatttgcggcgaagt ggatcaaattc
601 cggctgagcc atggatctt ccgcattccat caggaaaacg agccggaaaaa aggatcagag
661 aatgcgatga ttaccgttcc tgcagacatc ccagtcgggg aacgaaatcg ggtgcaggaa
721 acggcaaaga aagtatatcg ggcgcttgaa tgcagagggc ttgcggctgt tgatctttt
781 ttg

SEQ ID NO: 16

1 tgctgcgaga taccacagaa aacaatcagg aattgtctta actttgaaag gagtttacag
61 catgaataaa ataaaagtgcg caattatctt cggcggttgc tggaggaaac atgatgtgtc
121 ggtaaaatcc gcaatagaaa ttgcgtcgaa cattaatact gaaaaattcg atccgcacta
181 catcggatt aaaaaaaacg gcgtatggaa gctatgcaag aacccatgta cggatggga
241 agccgatagt ctccccgcca tattctcccc ggataggaaa accgcattgc tgcattgtcat
301 gaaagaaaaga gaatacgaaa ctcggcgtat tgacgtggct ttccgggtt tgcattggcaa
361 atgcggggag gatgggtcgat tacagggtct gtttgaatttgc tgcgtatcc cctatgttagg
421 ctgcgatatt caaagctccg cagcttgcatttgcacaaaatca ctggcctaca ttcttacaaa
481 aaatgcgggc atcggcgtcc cggatattca aatgattgaa aaaggtgaca aaccggaggc
541 gaggacgcgtt acctaccctg tctttgtgaa gccggcacgg tcaggttcgt ccttggcgt
601 aacccaaagta aacagtacgg aagaactaaa cgctgcgata gaagcagcag gacaatatga
661 tggaaaaatc ttaatttgagc aacgcatttc gggctgtgag gtcggctgc cggctatggg
721 aaacgaggat gatttgatttgcggcgaagt ggatcaaattc cgggttgcgac acggatctt
781 ccgcattccat caggaaaacg agccggaaaaa aggctcagag aatgcgatga ttatcgatcc
841 agcagacatt ccggctcgagg aacgaaatcg ggtgcagaa acggcaaaga aagtatatcg
901 ggtgcttgcgat tgcagagggc ttgcgtgt tgatctttt ttgcaggagg atggcggcat
961 cgttctaaac gaggtcaata ccctgggg ttttacatcg tacagccgt atccacgcatt
1021 ggcggctgcc gcaggaatca cgcttcccg actaattgac agcctgatta cattggcgat
1081 agagaggtga

SEQ ID NO: 5

FIG. 2 (cont'd)

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Escherichia coli
Klebsiella pneumoniae
Serratia marcescens
Citrobacter freundii
Proteus mirabilis
Salmonella enteritidis
Pseudomonas aeruginosa
Haemophilus influenzae
Haemophilus parainfluenzae
Candida glabrata
Candida albicans
Candida krusei
Candida parapsolosis
Bacillus cereus
Listeria monocytogenes
Corynebacterium urealyticum
Archacobacterium haemolyticum
Erysipilothrix rhusopathiae
Stomatococcus
Micrococcus luteus
Staphylococcus saphrophyticus
Staphylococcus aureus
Staphylococcus epidermidis
Group A *Streptococcus*
Streptococcus mitis
Streptococcus pneumoniae
Group B *Streptococcus*
VanA Enterococcus faecium
VanB Enterococcus faecium
Non VanA/VanB *Enterococcus faecium*

Fig 3